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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/710,355

07/02/2004

Toru Iwai

SIC-04-010

8415

29863

7590

06/23/2006

DELAND LAW OFFICE

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EXAMINER

KING, BRADLEY T

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/710,355

Applicant(s)

IWAI ET AL.

Examiner

Bradley T. King

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 12-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 12 has been amended to recite "wherein an innermost peripheral surface of the apparatus undulates." The original disclosure fails to provide antecedent basis for this limitation nor is it clear what is intended to be encompassed by the term.

### ***Claim Rejections - 35 USC § 103***

Claims 1-5, 7-11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2679162) in view of Shima et al (JP 56134089).

Re claims 1-4 and 9-11, Otomo teaches a disk brake rotor apparatus capable of use as a bicycle brake rotor comprising: a generally circular first rotor (1) member with a first fixing (5) component structured to mount the first rotor member to a hub mounting member, a generally circular first second rotor (2) member with a first second fixing

component (5) structured to mount the first second rotor member to the hub mounting member, wherein the first rotor member is attached to a side of the first second rotor member, and wherein the first second rotor member is formed of a material having greater braking wear resistance than the first rotor member wherein the first rotor member (1) comprises a first fixing component (5) structured to mount the first rotor member to a hub mounting member. Otomo remains silent as to the means of fixing the rotor components. Shima discloses a similar rotor and further teaches pressure welding as a known means of assembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize assembly methods such as pressure welding as taught and demonstrated by Shima to assemble the rotor of Otomo as an obvious means of manufacture, thereby ensuring proper durability and performance in the rotor and prevent failure of the brake discs comprised of dissimilar metals.

Claims 5-8 are deemed by the examiner to be product by process claims. Product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps.

Re claims 15, See Figures 1-5, Otomo.

Claims 12-14 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo and Shima et al, as applied to claim 15 above, and further in view of Seymour (US# 6343675).

Re claims 12-14, Otomo, as modified, lacks the undulating inner peripheral surface. Seymour discloses a similar brake member and further teaches inwardly extending mounting members which facilitate mounting and form an undulating surface (as best understood, see the 112 1<sup>st</sup> rejection above). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the mounting members taught by Seymour in the brake of Otomo and Shima et al as an obvious alternative means of mounting, thereby providing proper retention and weight reduction by the elimination of unnecessary material near the mounting portions.

Re claims 16-21, Otomo as modified, does not teach wherein the hub mounting member comprises a centrally disposed hub attachment component structured to be mounted to the hub; and a rotor attachment component extending radially outwardly from the hub attachment component and structured to mount to the first fixing component, to the first second fixing component and to the second second fixing component. Seymour teaches a hub mounting member (Figure 3) comprising a centrally disposed hub attachment component structured to be mounted to the hub; and a rotor attachment component extending radially outwardly from the hub attachment component and structured to mount to the first fixing component, to the first second fixing component and to the second second fixing component. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the hub mounting member of Seymour in the apparatus of Otomo as modified in order to facilitate connection of the rotor to the hub.

***Response to Arguments***

Applicant's arguments filed 3/09/2006 have been fully considered but they are not persuasive.

Regarding Otomo in view of Shima et al, it is maintained that Shima et al teaches pressure welding as a known and suitable means of manufacture of laminated brake rotors which results in a rotor which resists cracking. Otomo discloses a similar rotor, but remains silent as to the method of assembly. It necessarily follows that one of ordinary skill in the art must seek a method of assembly such as taught by Shima et al. Also note, MPEP 2144.07.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571) 272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BTK

  
JAMES MCCLELLAN  
SUPERVISORY PATENT EXAMINER  
6/21/00